

Blood marrow greatly needed

South Asian community seeks donors

By [LAURA GEGGEL](#)

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Sameer Bhatia first blamed his symptoms, which arrived just before the monsoon season in India, on the 100-degree weather and humidity.

"I started feeling nausea, lack of appetite and my heart was racing when I had just climbed a flight of stairs," the Mercer Island native said. He ordered heart tests and instead found that his white blood cell count had rocketed. He was diagnosed with leukemia.

If he wanted treatment in the United States, he would have to fly to America that night, his doctor said.

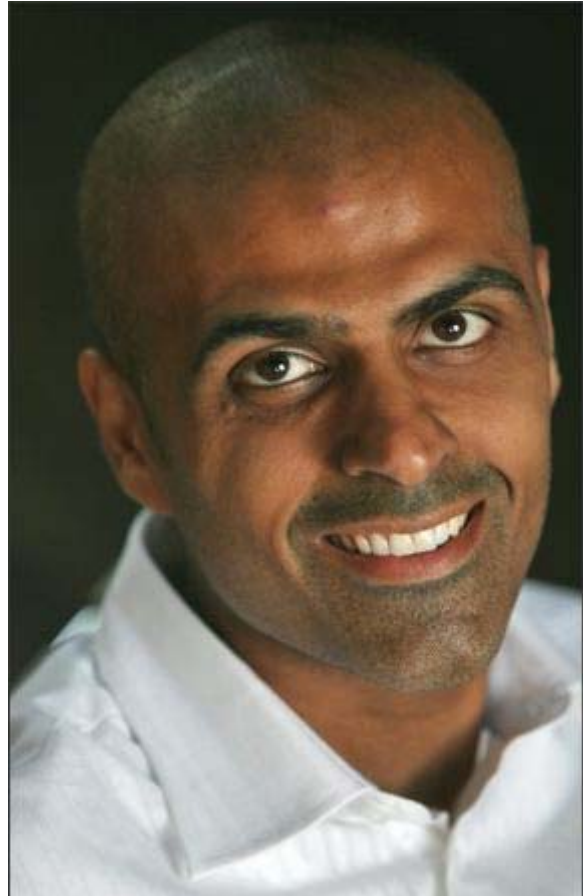
The Bhatias booked the last two tickets on a flight that May evening and arrived at a hospital in New Jersey 40 hours later. Bhatia had a bone marrow biopsy the next day to confirm his diagnosis.

The doctor verified two things: Bhatia had acute myelogenous leukemia and he needed a bone marrow transplant.

But a bone marrow transplant can be an insurmountable challenge for people of South Asian decent -- they have just a 1 in 20,000 chance of finding a compatible donor, according to the National Marrow Donor Program. Caucasians have a 1 in 15 chance of finding a match.

Of the 6 million people registered in the donor program, just 1.5 percent are South Asian.

At 31, Bhatia is used to traveling for work but not for health. He grew up on Mercer Island, graduated from Mercer Island High School in 1993 and attended Stanford for his undergraduate degree. He and his wife, Reena, live in San Francisco and



routinely fly to Mumbai (formerly Bombay) where they manage a leg of their company, which makes cell phone games.

The entrepreneur faced his prognosis like a business challenge. He joined Vinay Chakravarthy, a South Asian in Boston who also has leukemia, in a national bone marrow registry drive.

Now back on Mercer Island and living with his parents while he receives treatment at the Fred Hutchinson Cancer Research Center, Bhatia is encouraging Seattleites to register in hopes he will improve his odds for survival.

In the past two months, 20,000 more South Asians have registered nationwide. Bhatia and Chakravarthy hope to raise that number to 50,000.

Registering is as easy as giving a cheek swab. Each person has human leukocyte antigens, or HLA, inherited from their parents. These proteins are found on white blood cells and throughout the body. If a foreign substance such as a bacterium enters the body, the immune system will identify it as an enemy and order an attack. Likewise, when tissue or cells from a donor are transplanted to a patient, differences in antigens can trigger an immune assault.

By simply rubbing a swab on the inside of a cheek, researchers can collect cells for DNA typing, enabling matches between the registry's database and the patient.

Patients typically find matches 30 percent of the time within their family. The other 70 percent look for matches among the 10 million registered donors worldwide, according to the donor program.

"All minorities have a worse chance of finding a donor because participation amongst minorities isn't as high," said Bryan Fung, the rare-donor representative at Puget Sound Blood Bank. Many countries, including India, do not have a national marrow donor program on the same scale as the U.S.

"In Puget Sound, the Indian community is spread out over many miles," said Gita Gisin, an organizer with the bone marrow drives. "It makes it difficult to rally people, so we are organizing drives with companies like Microsoft that have large South Asian populations."

Jeff Young, a Seattle friend of Chakravarthy's, said it takes a "meaningful commitment" to register and follow through with the procedure. Young, 28, is not a fan of hospitals, but he registered to show solidarity.

"I won't be called unless it's to save a life. It seemed like something I ought to do because I'm a member of a rare donor category," said Young, whose father is Chinese and whose mother is from Western Europe.

Bhatia's leukemia is in remission, but if he doesn't find a match within the next few weeks, he will need more radiation and may opt for a cord blood donation, in which blood stem cells can be obtained from umbilical cord blood. Cord blood transplants are a relatively new but promising procedure.

"If we can't find an optimal match from a healthy adult donor, umbilical cords are a good option because the requirement for HLA matching is not as stringent for umbilical cord blood as the need for matching of unrelated adult blood and marrow stem cells," said Dr. John Hansen, a UW professor and clinical researcher at the Fred Hutchinson Cancer Research Center.

Either way, Bhatia can't wait to find a match.

"I don't have a choice not to live a long life because I have to go out and thank everyone for their help," Bhatia said.

HOW IT WORKS

Once a match is found, the donor receives several shots that mobilize the blood stem cells into circulation, and in five to six days, the blood stem cells are collected on a cell separator machine. Most of the red blood cells and plasma are returned to the donor.

Alternatively, the donor may give marrow cells, which are collected by insertion of needles into the pelvic bones. Donors typically report feeling sore for a few days after the procedure, as if they had just returned from the gym.

The recipient prepares for a longer procedure. Depending on the disease, the patient may receive intense chemotherapy or radiation to eradicate malignant cells, or may receive a less intense treatment designed to suppress his or her immune system for the transplant. If all goes well, the new bone marrow, blood and immune system will be capable of killing the remaining cancer cells.